WHAT IS CLAIMED IS:

1. A method for joining end portions of belt-shaped glass sheets, comprising:

thermally softening the end portions of the belt-shaped glass sheets after locating the end portions so that the end portions overlap each other within the range of the glass sheet width; and

clamping lap portions of the thermally softened end portions at least once from both sides in the thickness direction of the belt-shaped glass sheets, thereby joining the lap portions together to adjust the lap portions to the thickness of the belt-shaped glass sheets.

2. A method for joining belt-shaped glass sheets according to claim 1, wherein the thermally softened end portions are clamped at least once for a clamping time of about 2 seconds or less.

3. A method for joining belt-shaped glass sheets according to claim 1, wherein the end portions are superposed on each other so that the belt-shaped glass sheets form corner portions, the belt-shaped glass sheets are then held substantially within a vertical plane with the inside of the corner portions vertically upward, and the end portions are then thermally softened and clamped.

4. A joining method for belt-shaped glass sheets according to claim 3, wherein the end portions of the

belt-shaped glass sheets are superposed on each other with end corners of the belt-shaped glass sheets partially notched.

5. A joining apparatus which joins the end portions of belt-shaped glass sheets, comprising:

a glass sheet holding portion which holds a plurality of belt-shaped glass sheets so that the end portions thereof overlap each other within the range of the glass sheet width;

a heating mechanism which thermally softens the end portions of the held belt-shaped glass sheets; and

a clamping mechanism configured to clamp lap portions of the thermally softened end portions from both sides in the thickness direction of the belt-shaped glass sheets, thereby joining the lap portions together to adjust the lap portions to the thickness of the belt-shaped glass sheets.

6. A joining apparatus according to claim 5, wherein the clamping mechanism includes a pair of pressure dies movable between a clamping position, in which the dies face each other across a gap substantially equal to the thickness of the belt-shaped glass sheets, and an open position, in which the dies are spaced, and a drive mechanism which moves the pair of pressure dies from the open position to the clamping position with the lap portions of the belt-shaped glass sheets situated between the pair of pressure dies so

that the lap portions are clamped by means of the pressure dies.

7. A joining apparatus according to claim 6, wherein the glass sheet holding portion includes a rack, which holds the belt-shaped glass sheets substantially flush with one another in a manner such that the belt-shaped glass sheets extend across one another and that the end portions are superposed on each other so that the belt-shaped glass sheets form corner portions, and a base which supports the rack so that the belt-shaped glass sheets are situated substantially within a vertical plane with the inside of the corner portions vertically upward and that the lap portions are situated between the pair of pressure dies.

8. A method of manufacturing a glass frame, comprising:

holding a plurality of belt-shaped glass sheets substantially flush with one another in the form of a frame and locating the end portions of each two adjacent belt-shaped glass sheets so that the end portions overlap each other within the range of the glass sheet width;

thermally softening the end portions of the belt-shaped glass sheets; and

clamping lap portions of the thermally softened end portions at least once from both sides in the

thickness direction of the belt-shaped glass sheets, thereby joining the lap portions together to adjust the lap portions to the thickness of the belt-shaped glass sheets.

9. A method manufacturing for a glass frame according to claim 8, wherein the thermally softened end portions are clamped at least once for a clamping time of about 2 seconds or less.

10. A method for manufacturing a glass frame according to claim 8, wherein the belt-shaped glass sheets are held substantially within a vertical plane in a manner such that the inside of corner portions defined by the end portions of the belt-shaped glass sheets faces vertically upward, and the end portions are thermally softened and clamped.

11. A manufacturing apparatus which manufactures a glass frame by joining the end portions of belt-shaped glass sheets, comprising:

a glass sheet holding portion which holds a plurality of belt-shaped glass sheets so that the end portions thereof overlap each other within the range of the glass sheet width, the belt-shaped glass sheets being arranged substantially flush with one another in the form of a frame;

a heating mechanism which thermally softens the end portions of the held belt-shaped glass sheets; and

a clamping mechanism which clamps lap portions

of the thermally softened end portions from both sides in the thickness direction of the belt-shaped glass sheets, thereby joining the lap portions together to adjust the lap portions to the thickness of the belt-shaped glass sheets.

12. A manufacturing apparatus according to claim 11, wherein the clamping mechanism includes a pair of pressure dies movable between a clamping position, in which the dies face each other across a gap substantially equal to the thickness of the belt-shaped glass sheets, and an open position, in which the dies are spaced, and a drive mechanism which moves the pair of pressure dies from the open position to the clamping position with the lap portions of the belt-shaped glass sheets situated between the pair of pressure dies so that the lap portions are clamped by means of the pressure dies.

13. A manufacturing apparatus according to claim 11, further comprising a base which supports the rack so that the belt-shaped glass sheets are situated substantially within a vertical plane, are rockable around a substantially horizontal axis of rotation, and can move the end portions of the belt-shaped glass sheets to a given joining position, and a sliding mechanism which supports the rack for movement in the longitudinal direction of one of the belt-shaped glass sheets with respect to the base.

14. A method for manufacturing an image display apparatus, which comprises an envelope, having a front substrate and a rear substrate opposed to each other and a sidewall in the form of a rectangular glass frame located between the respective peripheral portions of the front substrate and the rear substrate, and a plurality of elements arranged in the envelope, comprising:

holding a plurality of belt-shaped glass sheets substantially flush with one another in the form of a frame and locating the end portions of each two adjacent belt-shaped glass sheets so that the end portions overlap each other within the range of the glass sheet width;

thermally softening the overlapping end portions of the belt-shaped glass sheets; and

clamping lap portions of the thermally softened end portions at least once from both sides in the thickness direction of the belt-shaped glass sheets, thereby joining the lap portions together to adjust the lap portions to the thickness of the belt-shaped glass sheets and forming the sidewall.

15. A manufacturing apparatus for an image display apparatus, which comprises an envelope, having a front substrate and a rear substrate opposed to each other and a sidewall in the form of a rectangular glass frame located between the respective peripheral portions of

the front substrate and the rear substrate, and a plurality of elements arranged in the envelope, comprising:

a glass sheet holding portion which holds a plurality of belt-shaped glass sheets so that the end portions thereof overlap each other within the range of the glass sheet width, the belt-shaped glass sheets being arranged substantially flush with one another in the form of a frame and constituting the glass frame;

a heating mechanism which thermally softens the end portions of the held belt-shaped glass sheets; and

a clamping mechanism which clamps lap portions of the thermally softened end portions from both sides in the thickness direction of the belt-shaped glass sheets, thereby joining the lap portions together to adjust the lap portions to the thickness of the belt-shaped glass sheets.